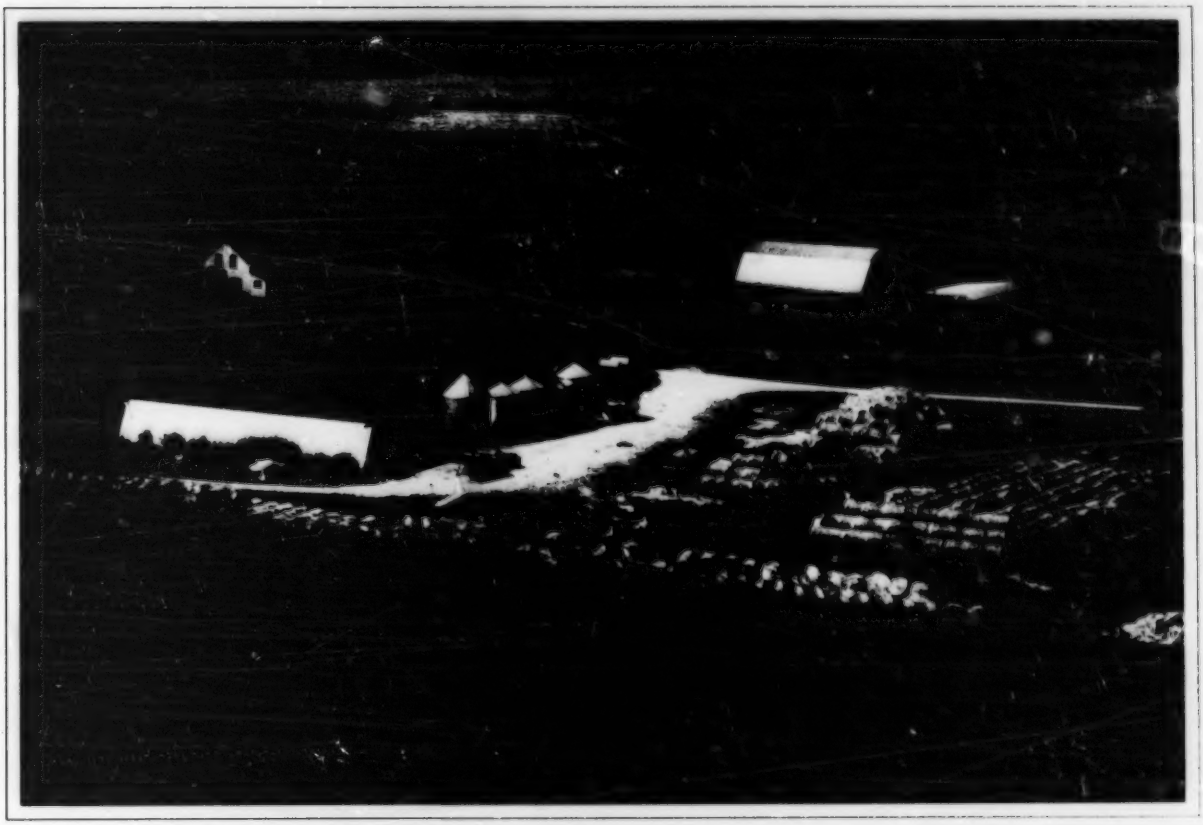
Manitoba Agricultural Review 2001



Manitoba Agriculture and Food
Program & Policy Analysis

103-00169/

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DATA SOURCES:

Agriculture and Agri-Food Canada
Bank of Canada
Canadian Food Inspection Agency
Canfax
Manitoba Agriculture and Food
Manitoba Bureau of Statistics
Manitoba Agricultural Credit Corporation
Manitoba Hydro
Manitoba Chicken Producers
Manitoba Egg Producers
Manitoba Turkey Producers
Statistics Canada

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MANITOBA AGRICULTURAL REVIEW

INTRODUCTION

The major focus of this publication is on primary agriculture. However, farming obviously cannot exist in isolation. It is an integral part of the total agriculture-food system, which includes manufacturing, processing, transportation, distribution and wholesale/retail trade. Agriculture makes an important contribution to Manitoba's overall economic activity, both in its production and consumption. Between 1997 and 2001, agriculture and related industries contributed an average of 11 percent to the provincial Gross Domestic Product. Agriculture accounted for almost one dollar in eight of production in Manitoba's economy in 2001. For every dollar of net farm income produced in Manitoba, almost two dollars is generated in the overall provincial economy. In Manitoba, one job in eleven depends on agricultural production. As well as stimulating local employment, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada

PRIMARY AGRICULTURE

LAND RESOURCE

Manitoba extends 1 225 kilometres (761 miles) from the U.S. border to the Northwest Territories. Its area is 64.8 million hectares (160 million acres). The total land area is 54.8 million hectares (135.3 million acres), of which 14.6 million hectares (36.2 million acres) or 26.6 percent have some agricultural potential. Over 9.6 million hectares (23.6 million acres) of this area are non-organic soils; 5.5 million hectares (13.5 million acres) of these are suitable for sustained annual production of cultivated crops. Land use for agriculture in 2001 (both improved and unimproved land) totalled over 7.6 million hectares (18.8 million acres), or over 50 percent of total lands with agricultural potential.

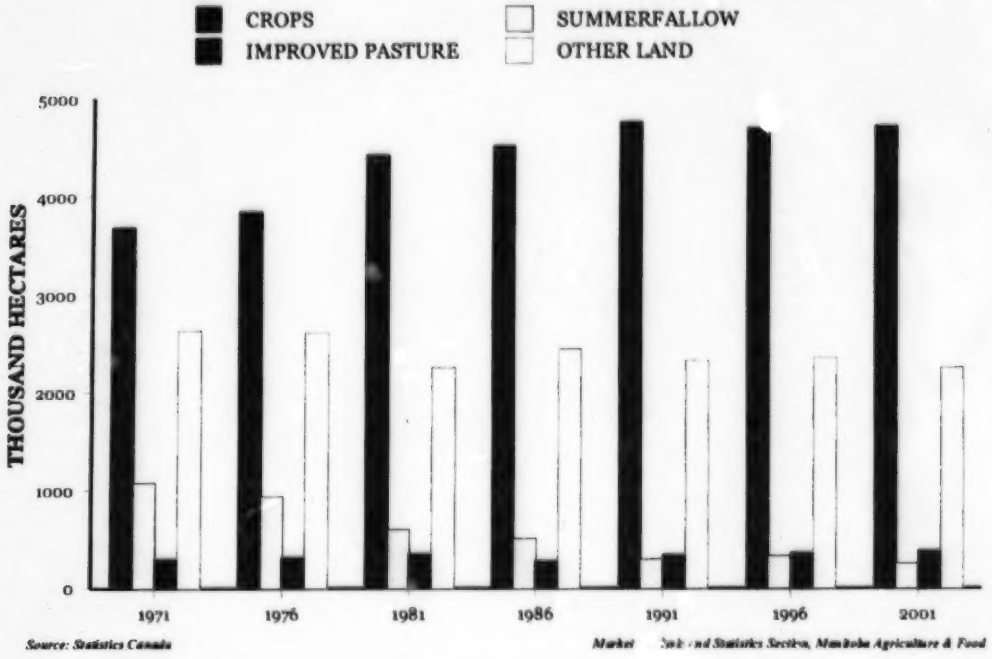
In 2001, over 4.7 million hectares (11.7 million acres) were seeded to crops, while the area of summerfallow increased to 0.26 million hectares (0.63 million acres). About 0.38 million hectares (0.95 million acres) were improved pasture and 1.58 million hectares (3.91 million acres) were unimproved lands used for pasture or hay.

Further opportunity to expand the agricultural land resource base exists, especially greater use of organic soils. However, development costs for new lands would be substantial. Approximately 5.1 million hectares (12.6 million acres) of organic soils are in the non-permafrost or fringe agricultural zone of Manitoba. About 0.8 million hectares (2.0 million acres) of these soils could be used for crop production. About 0.2 million hectares (0.5 million acres) of organic soils are currently under cultivation.

FARMS AND FARMERS

In 2001, there were **21,071 farms** in Manitoba, a decrease of 13.6 percent from 1996. The trend towards farm consolidation began in 1941 and continued over the next sixty years. The decline in farm numbers from 1996 to 2001 was the largest ever over a five-year period, while 1991 to 1996 saw the smallest decrease in 45 years. Smaller farms, or those with annual sales under $50,000, comprised

LAND USE 1971-2001

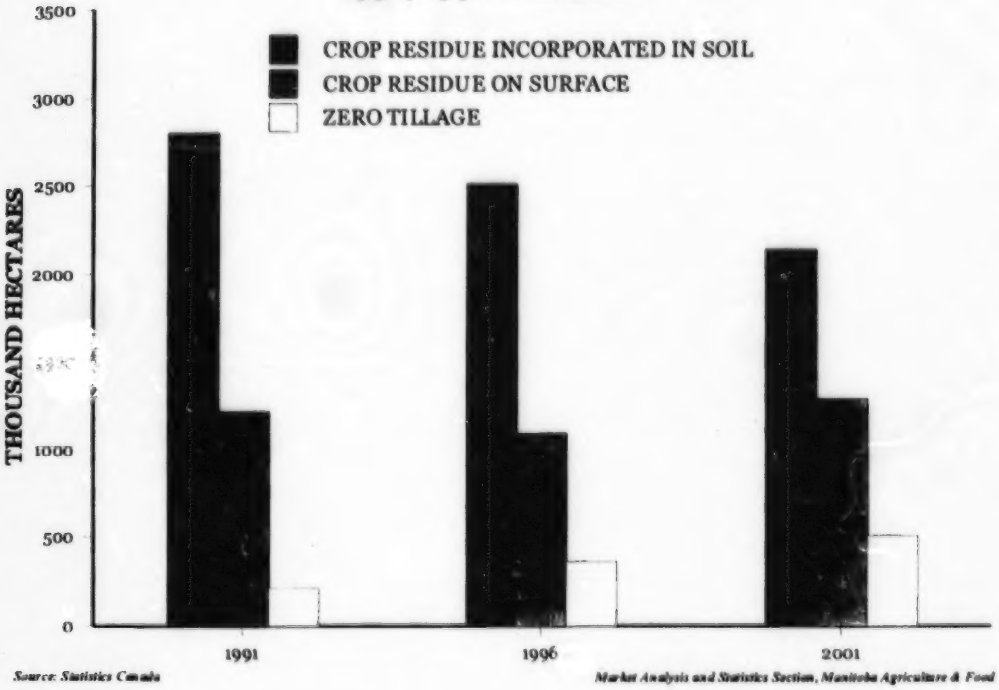


Source: Statistics Canada

Market [illegible] Statistics Section, Manitoba Agriculture & Food

TILLAGE PRACTICES

1991, 1996 and 2001

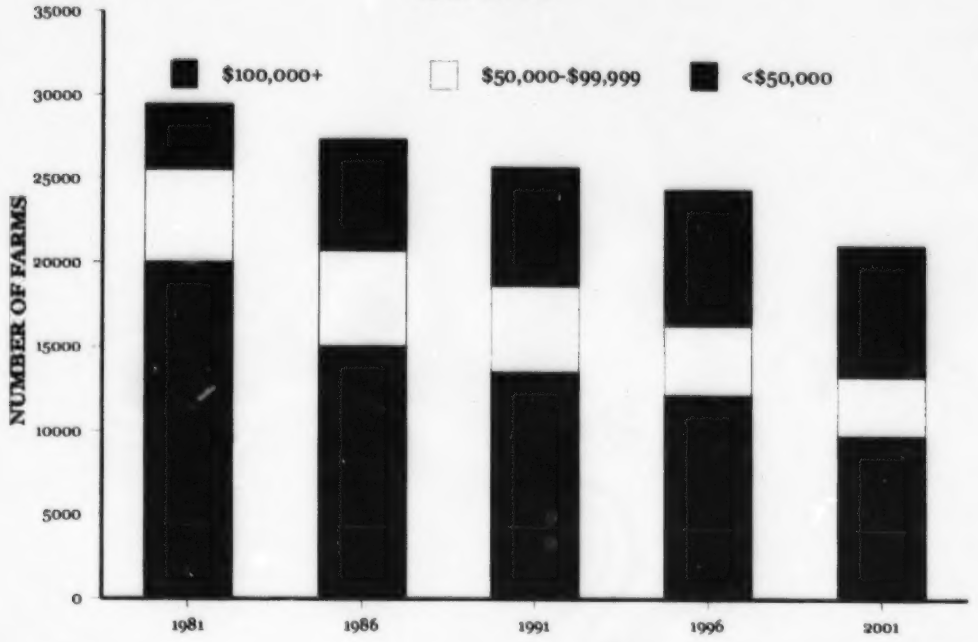


Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

FARMS CLASSIFIED BY FARM CASH RECEIPTS

1981-2001



Source: Statistics Canada

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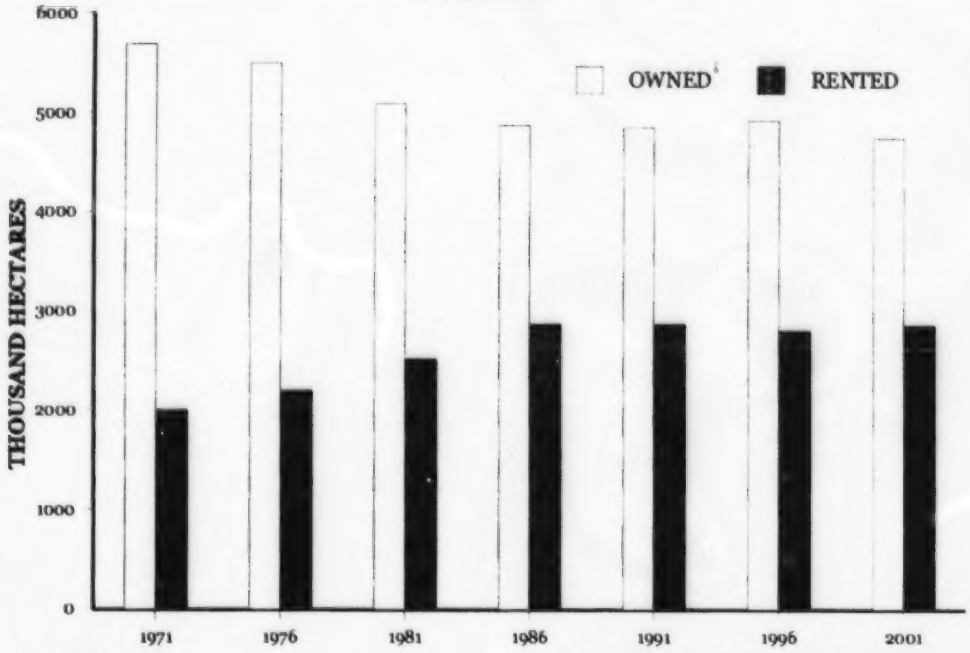
TENURE STATUS OF FARM LAND

1971-2001



Source: Statistics Canada

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46 percent of all farms. The **average size** of Manitoba farms rose from 317 hectares (784 acres) in 1996 to 361 hectares (891 acres) five years later. Over 62 percent of farmland was operator-owned while 38 percent was rented.

Almost three-quarters of Manitoba farms were classified as either predominantly wheat, other grains and oilseeds or cattle farms in 1996 and 2001. Wheat farms made up only 10 percent of all farms with gross sales over $2,500, other grain and oilseed farms comprised 27 percent, while cattle farms were 36 percent of the total.

Family-operated farms accounted for 98 percent of farms in 1996 and 2001, while non-family corporations represented 1.7 percent and other types, 0.3 percent. In 2001, proportionately more farm families had partnerships or other operating arrangements than in previous years, with almost 40 percent of farms being part of a partnership or family corporation.

According to most recent information from the 1996 Census of Agriculture, the **total farm population** that year was 79,840, a rise of 0.7 percent from the 1991 level. About one Manitoban in 14 lived on a farm in 1996. This was the first time in sixty years that the farm population increased. In 1996, 7,180 or 22 percent of the 33,300 farm operators were female. About 18 percent of farm operators were less than 35 years old, a decrease of three percent from the 1991 level. Over 51 percent were 35 to 54, and 31 percent were 55 years and over. In 1991, 32 percent of farmers were over 55 years.

According to the 2001 Census of Agriculture, 8,669 Manitoba farms hired a total of 493,462 weeks of **full-time** and **part-time labour**. This represents a 13.0 percent increase in the number of weeks of hired labour since 1996, but a 15.4 percent decrease in the number of farms reporting hired labour. Almost 45 percent of those hiring help did so on a full-time basis.

In 1995, the most recent year for which the information is available, 10,675 or 32 percent of farm operators had paid **off-farm work**. Almost nine percent of operators were paid for working less than 20 hours per week off-farm, over 14 percent worked for 20 to 40 hours per week off the farm, while nine percent worked over 40 hours per week in paid off-farm employment in 1995. There were also 4,265 farm operators who operated a business other than farming. In 1999, farm families averaged $16,803 of **net farm operating income** compared to $17,432 in 1998. On average, **farm family total income** (including net farm income and non-farm income, but excluding capital cost allowance) was $62,222 in 1999, up by two percent from $61,108 in 1998.

FARM INCOMES

Farmers have very little control over the prices they receive for most of the commodities they produce. Changing production costs, dependence on the weather and variable commodity prices make farming a risky business. Government-assisted stabilization and insurance programs have helped moderate fluctuations in farm incomes.

Manitoba **realized net farm income** (cash flow) increased in 2001 to a record level of $668 million, mainly due to higher livestock receipts. Recently, net income has varied from $ 46 million in 1990 and 1991 to $316 million in 1993 due to increased government assistance. As returns from the market place improved and assistance to farmers declined, higher farm cash receipts offset rising expenses. As a result, realized net income rose from $134 million in 1995 to $432 million in 1997. Declining crop cash receipts contributed to the drop in income to $264 million in 1999.

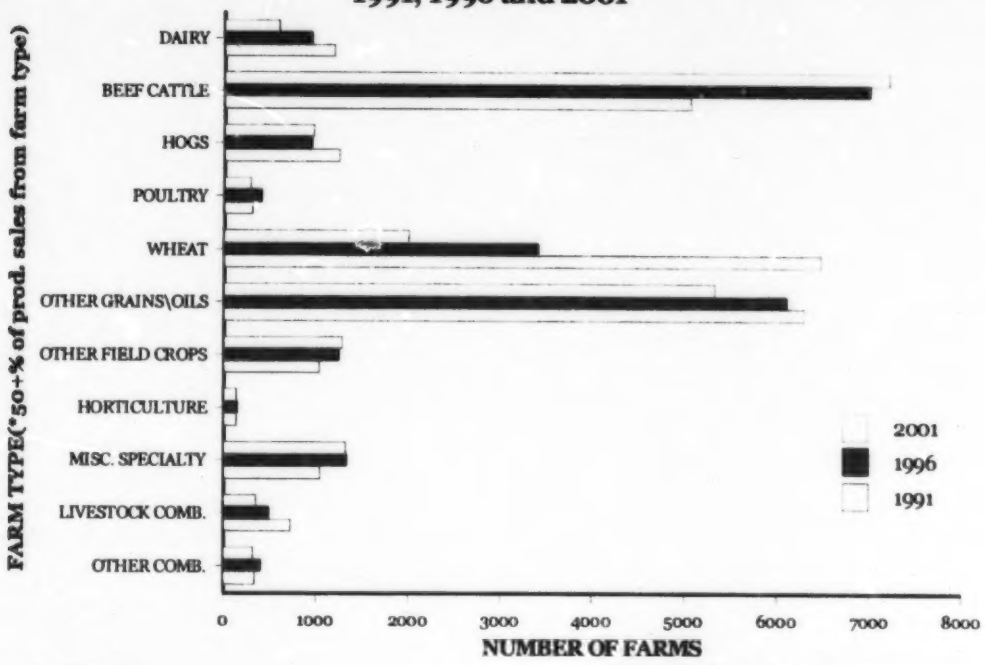
Over the last three decades, **total net income** (realized net income adjusted for inventory change) per farm ranged from a low of $500 in 1980 to a high of $31,300 in 2001. In the 1990s, the variation in factors such as cash receipts, farm expenses, on-farm inventories and depreciation resulted in total net income decreasing to $4,100 per farm in 1991, but rising to $14,400 per farm in 1994. In 1995, rising expenses and lower crop inventory contributed to a significant drop in total net income per farm to $7,000. This was followed by the highest net income of the decade, $22,100, in 1996. Excess soil moisture prevented about ten percent of the crop from being seeded in 1999, which together with lower prices for most crops, caused total net income per farm to drop to $9,700. Record livestock inventories then led to two years of record farm cash receipts, which contributed to the higher total net income per farm of $21,700 in 2000 and a new record of $31,300 in 2001.

FARM EFFICIENCY

Improved productivity in all sectors of the food system has greatly increased food production and lowered food prices over the past sixty years. Much of this increased efficiency is due to farmers. Each Manitoba farm feeds about 350 people, seven times as many as sixty years ago. In addition, prices of unprocessed foods have not increased as much as wages, so Manitoba consumers only have to work about a third of the time now as they did sixty years ago to buy Manitoba-produced beef, milk, eggs, vegetables and bread. Manitobans spent $2,034 per capita, or only 10.1 percent of their disposable income, in food stores in 2001, up from 10.0 percent in 2000.

FARMS CLASSIFIED BY FARM TYPE*

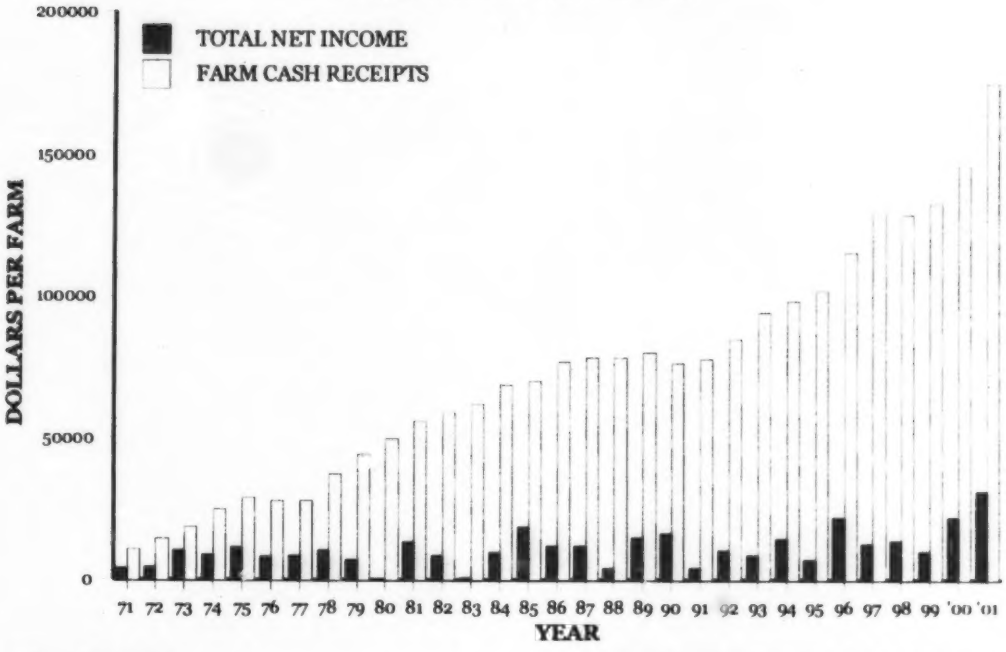
1991, 1996 and 2001



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

FARM CASH RECEIPTS AND TOTAL NET INCOME PER FARM, 1971-2001



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

VALUE OF FARM CAPITAL

The **total value of capital** used by Manitoba farmers in 2001 was about $15 billion, or almost $720,000 per farm operation. This included $9.8 billion (65 percent) for land and buildings, more than $3.3 billion (22 percent) for machinery and equipment and $1.9 billion (13 percent) for livestock and poultry.

Between 1971 and 1981, rising land prices caused the value of Manitoba farm land to more than double every five years. However, between 1981 and 1988, high real interest rates and low commodity prices affected land prices, resulting in a 14 percent decrease in the total value of agricultural land. Farm machinery sales in the province also suffered during these years. Crop prices improved in 1988, and from 1988 to 1990, the value of farm land rose by 18 percent, but declined again by one percent in 1991 before rising by 46 percent over the next ten years in response to the improved profitability of most farms.

Variable commodity prices and the significant fluctuations in farm profitability from year to year have resulted in a shift in the distribution of farm capital value. Land and buildings accounted for 65 percent of the total value in 2001, compared with 66 percent in 2000, and 75 percent in 1981 for the same components.

The **average value of farmland and buildings** in Manitoba in 2001 was $1,216 per hectare, similar to the level in 2000.

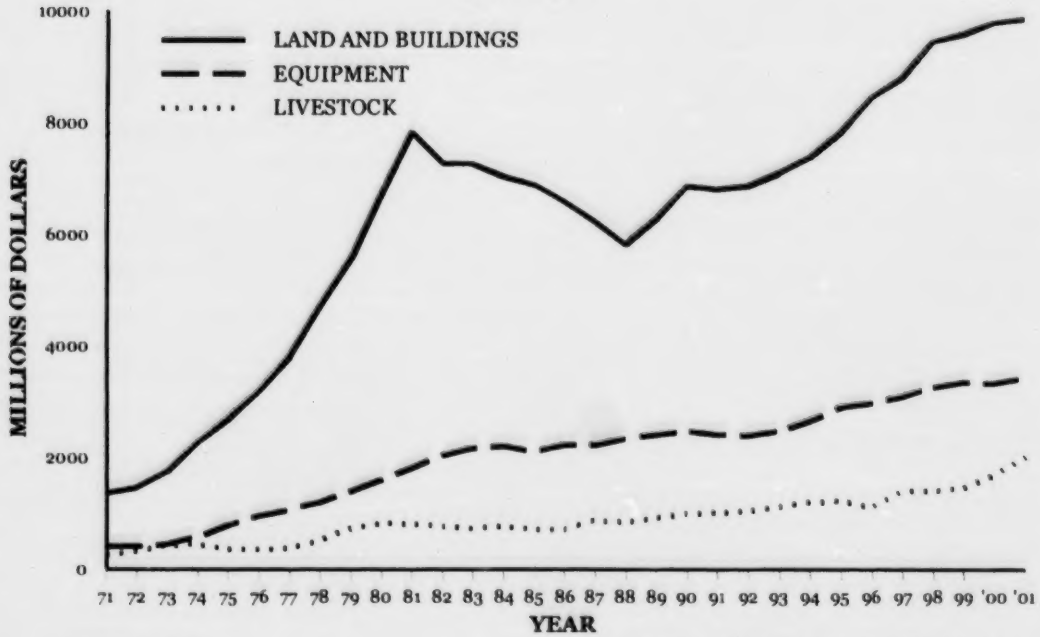
Most recent data show that Manitoba farmers had **average assets** of about $729,038 in 2001, **liabilities** of $174,229 and **average net worth** of $554,809. Long-term liabilities were 74 percent of total liabilities. Average net worth of hog farms increased by $135,110 from $1,096,285 in 1997 to $1,231,395 in 1999. The average net worth of grain and oilseed farms rose by $32,468 over the two years to $645,391 in 1999. The growth of various livestock sectors and the potato industry has resulted in **average net new investment** of $52,605 per farm in 1997 and $40,477 per farm in 1999.

Farmer-owners' **return on assets** has varied from a low of 2.7 percent in 1983 to a high of 8.2 percent in 1985 and was 5.5 and 6.6 percent in 2000 and 2001 respectively.

In 2001, the **ratio of farm equity to total assets** was 0.76. By enterprise type, grain, potato, dairy, hog, poultry and beef operations had equity to asset ratios of 0.81, 0.74, 0.82, 0.72, 0.81 and 0.82 respectively in 1999, most of which were lower than in 1997.

VALUE OF FARM CAPITAL

1971-2001

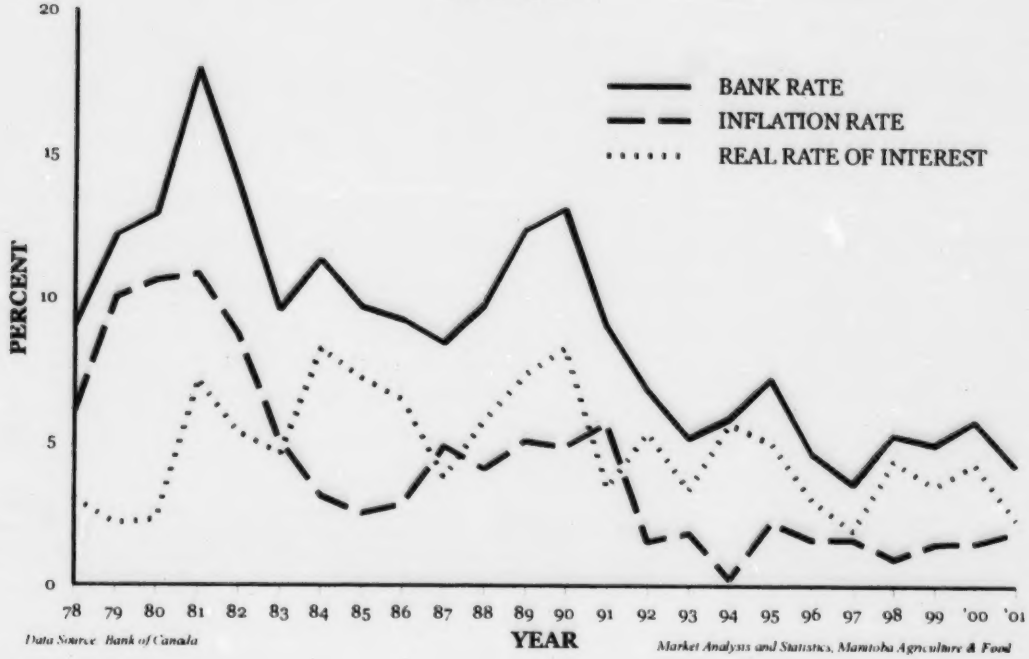


Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

BANK RATE, INFLATION RATE, REAL RATE OF INTEREST

1978-2001



Data Source: Bank of Canada *Market Analysis and Statistics, Manitoba Agriculture & Food*

Chartered banks financed 37.1 percent of the **total farm debt** in Manitoba in 2001. The provincial and federal governments, through agencies such as MACC (Manitoba Agricultural Credit Corporation) and FCC (Farm Credit Corporation), financed 6.8 and 17.3 percent of the provincial farm debt respectively, while government advanced payment programs accounted for 4.3 percent. Credit unions financed 21.5 percent of farm debt, while personal sources of credit, along with trust and insurance companies, amounted to 12.2 and 0.7 percent respectively.

Established farmers, who own their land and have low debt-to-asset ratios, are better equipped to survive the variability of agricultural profitability, particularly during periods of low commodity prices. Younger and beginning farmers with low equity and high debt face a more difficult financial situation. New operators may have limited finances and their low equity makes them a high risk to lending institutions. **MACC** is a vital source of financing for these higher-risk farmers. In 2000-2001, 547 long-term loans were approved by MACC, totalling $38.5 million. Most loans were made for land purchases (55 percent) or debt consolidation (25 percent). Almost $27 million in long-term loans, or 72 percent of the total value of loans to individual farmers, went to farmers under 40 years of age. Since 1978-1979, *The Young Farmers Rebate* has assisted young and beginning farmers develop, re-organize and/or expand their farming operations. The rebate reduces the cost of borrowing during the initial start-up stage of the operation. During 2000-2001, young farmer rebates totalled $1.6 million, an 18 percent increase from the previous year.

Operations wanting to diversify often experience difficulty obtaining suitable financing due either to equity shortfalls or to being unable to meet traditional security requirements. Since 1995-1996, MACC's *Diversification Loan Guarantee Program* has assisted producers either to diversify existing operations or to add value to agricultural commodities. By the end of 2000-2001, 93 guarantees were approved and in place for loans from private lenders totalling $79.1 million.

As farms become larger, operating debt financing becomes more important in the cost of operation. The **interest** paid **on farm debt** in 2001 was estimated at $222.7 million, down by 1.8 percent from 2000. Interest on debt as a percentage of total farm operating expenditure fell from 16.8 percent in 1981 to 6.7 percent in 1997, but rose to 9.0 and 8.4 percent in 2000 and 2001. As interest forms a fairly large portion of total farm operating expenditures of some farms, a high equity position could be as important as operating efficiency to assure continued solvency.

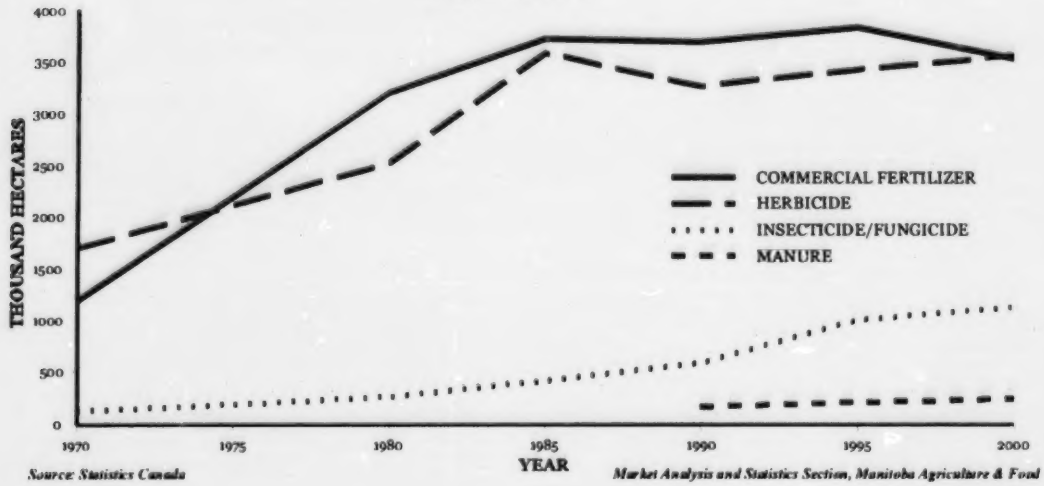
OTHER AGRICULTURAL EXPENDITURES

Manitoba farmers have substantial operating expenditure requirements for such items as feed, pesticides, fertilizer and fuel. In 1996, total net farm expenses (which included net operating expenses and depreciation) were $2.58 billion. Five years later, the 2001 total net farm expense was $3.03 billion, up 17.4 percent from 1996 and 4.9 percent higher than in 2000. It is estimated that 2002 total net farm operating and depreciation expenses could be about $3.05 billion.

Fertilizer: The amount of fertilizer sold in Manitoba fell by 8.5 percent from 914 600 tonnes in 2000 to 837 000 tonnes in 2001. An increase in fertilizer prices more than offset decreased use causing total fertilizer expenditures to go up by 14.4 percent from $308.9 million in 2000 to $353.4 million in 2001. Manitoba farmers used 0.6 percent more fertilizer in 2001 than in 1996, with total fertilizer expenses increasing by 10.4 percent over the five-years.

FERTILIZER AND PESTICIDE USE BY TOTAL AREA

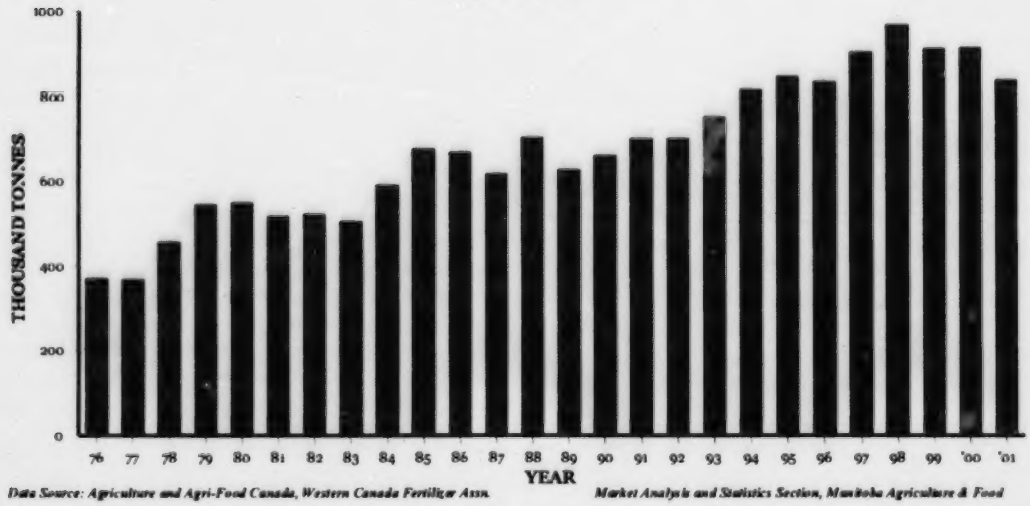
1970-2000



Source: Statistics Canada *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

FERTILIZER SALES

1976-2001



Data Source: Agriculture and Agri-Food Canada, Western Canada Fertilizer Assn. *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

Pesticides: Total farm purchases of pesticides in 2001 were estimated at $217.2 million, a decrease of 2.0 percent from 2000, but a rise of 5.0 percent from 1996.

Fuel: The total farm expenditure for diesel fuel, gasoline and lubricants in 2001 was $193.4 million, down by 1.1 percent from 2000. Farm fuel increased from 10.8 percent of net farm operating expenses in 1981 to peak at 12.5 percent in 1983. Fuel's share was 6.8 percent in 1999, 7.7 percent in 2000 and 7.2 percent in 2001.

Repairs: In 1996, Manitoba farmers spent $196.5 million on machinery/equipment repairs. By 2001, expenditures were about $217.5 million, a rise of 2.9 percent from 2000.

Buildings: Farm expenditure for building and fence repairs in 2001 was $58.3 million, very slightly lower than in 2000, but 21.9 percent above the 1996 level. Many farm buildings have been fully depreciated, but still remain serviceable.

Livestock: Livestock expenditures by Manitoba farmers in 2001 were estimated at $498.0 million. This was up by 20.4 percent from 2000 expenditures of $413.5 million due to higher costs for livestock purchases and commercial feed. In comparison, the total expenditure in 1996 was $337.6 million. Livestock expenses in 2001 represented 18.7 percent of operating expenditures.

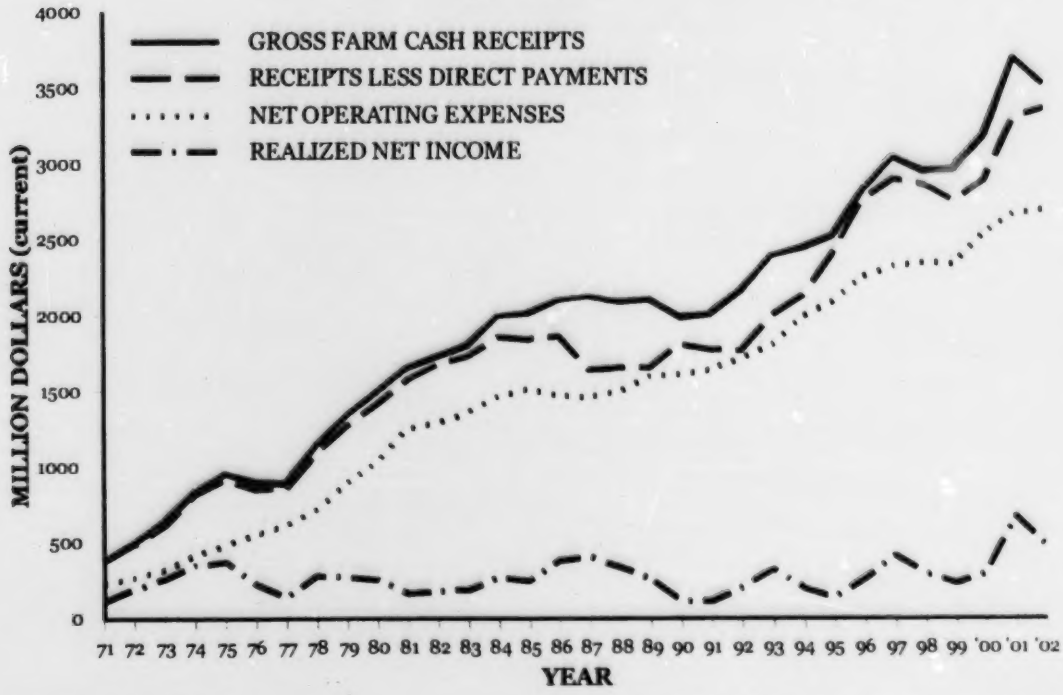
Seed: In 2001, Manitoba farmers spent $101.5 million on seed compared with $90.4 million in 1996 and $103.6 million in 2000. Seed costs in 2001 and 2000 accounted for 3.8 and 4.1 percent of operating expenditures respectively.

Cash Wages, Room and Board: Wages paid to farm and family workers amounted to $216.2 million in 2001, up by 1.9 percent from $212.2 million in 2000. Five years earlier in 1996, farm wages totalled $172.7 million.

Other Expenditures: Other farm expenditures include property taxes, rentals, insurance, electricity, telephone, heating fuel, legal and accounting fees, etc. Of the total $2.67 billion of total net operating expenditures in 2001 (excluding depreciation), other expenditures amounted to $589.2 million or 22.1 percent of the total. The increase of 1.7 percent from 2000 was partly due to a rise of 14.0 percent in the cost of heating fuel in 2001. In 1996, other expenditures accounted for $563.9 million, or 25.0 percent of the total.

MANITOBA FARM INCOME AND EXPENSES

1971-2002



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture and Food

AGRICULTURAL PRODUCTION

Manitoba's farm cash receipts were estimated at $3.69 billion in 2001, an increase of 16.2 percent from $3.17 billion in 2000. Almost 40.3 percent of these receipts were derived from crop production, while 49.3 percent came from livestock production, including the production of honey, fur and P.M.U. The remaining 10.4 percent came from direct payments to producers, such as Crop Insurance, Net Income Stabilization Account (NISA), Canada Farm Income Program (CFIP), Canada/Manitoba Adjustment Program (CMAP), dairy supplementary payments, etc.

Crops

Although southern Manitoba has the climate and soil to grow a wide range of crops, the traditional **grain crops** of **wheat** and **barley** occupied 44 percent of the more than 4.7 million hectares of harvested crop area in the province in 2001. The total harvested area was unchanged from 2000. Wheat and barley contributed about 40 percent of total farm cash receipts in the early 1980s. However, low grain prices caused this contribution to decline in the mid-1980s and early 1990s. Excess moisture reduced the area seeded to and production of grains in 1999, which, together with low prices, led to shares for 1999, 2000 and 2001 of 18, 16 and 18 percent respectively. In 2001, the harvested **wheat** area rose slightly to 1.58 million hectares, but lower yields reduced wheat production by 19.6 percent to 3.43 million tonnes. The 7.6 percent decline in harvested area to 445 200 hectares and lower yields decreased **barley** output by 23.9 percent to 1.23 million tonnes in 2001.

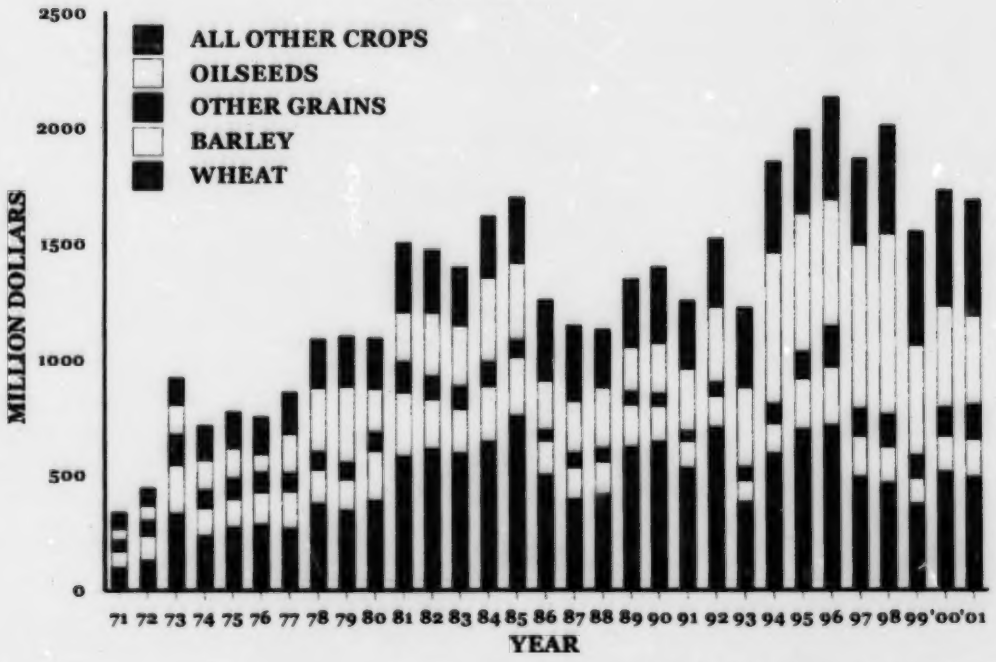
Manitoba produces other grain crops, such as **oats, rye** and **mixed grains**. These crops were harvested from 323 700, 18 200 and 6 100 hectares respectively. The oat crop in 2001 fell by 26.3 percent to 0.75 million tonnes.

Flaxseed has been a relatively important crop since the 1940s, but other **oilseed crops**, such as canola and sunflowers, have gained prominence since the early 1970s. In 2001, the province produced 28 percent of Canada's flaxseed, 23 percent of the national canola crop and 88 percent of the country's sunflowerseed.

An increase of 1.1 percent in harvested area to 176 000 hectares was more than offset by lower yields, reducing the **flaxseed** crop by 3.1 percent to 199 400 tonnes in 2001.

FARM VALUE OF CROP PRODUCTION

1971-2001



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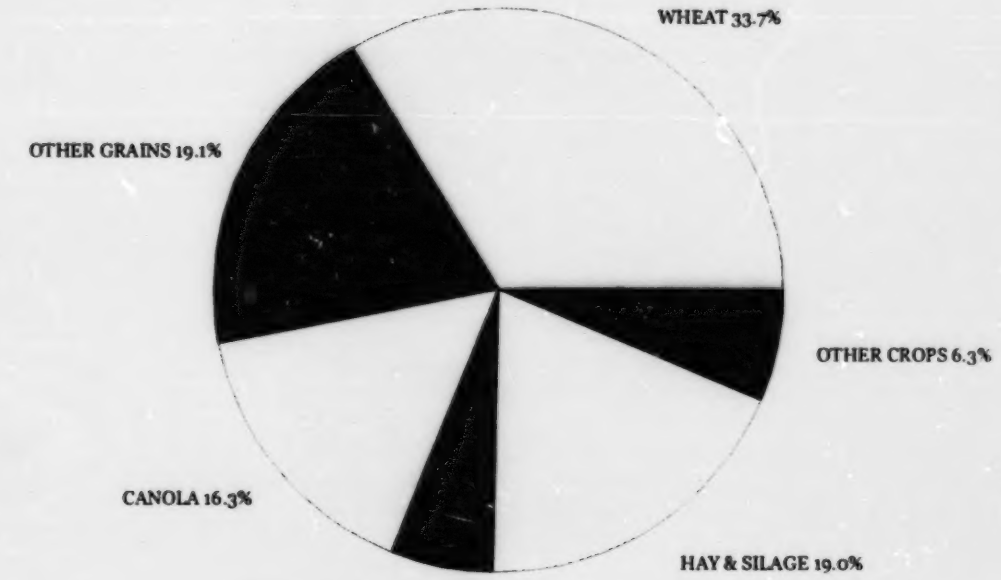
AREA OF CROPS PLANTED

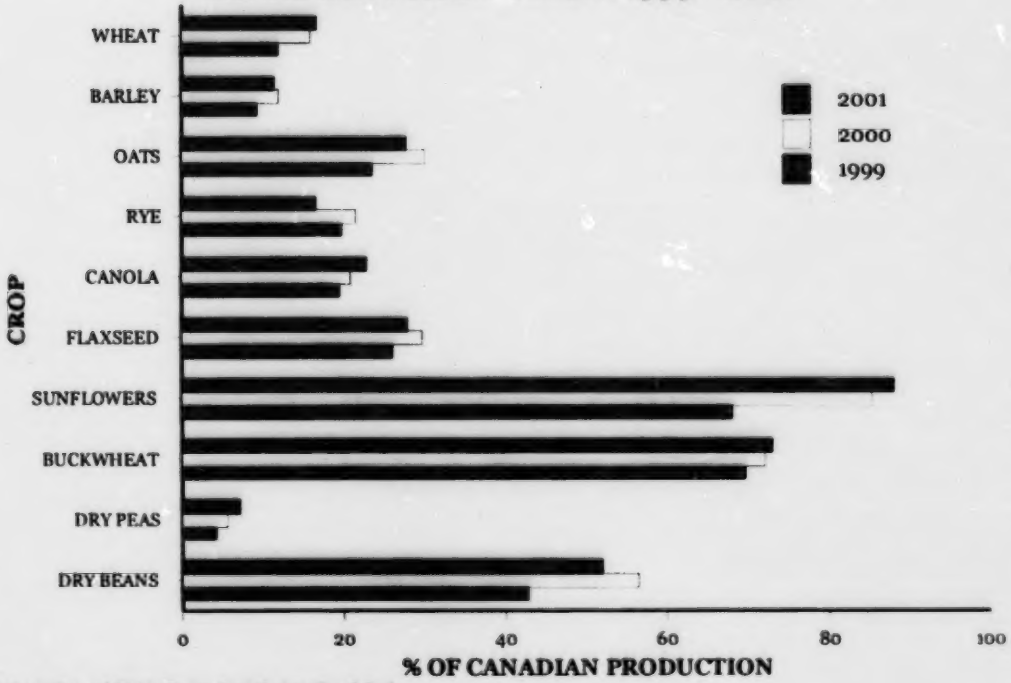
2001



Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

CROP PRODUCTION AS A PERCENTAGE OF CANADIAN PRODUCTION 1999 - 2001



Market Analysis and Statistics Section, Manitoba Agriculture & Food

The harvested area and production of **canola** fell to 760 800 hectares and 1 122 600 tonnes in 2001, 18.6 and 24.5 percent below the 2000 level. The smaller canola crop led to a lower value of production of $337 million in 2001, making canola Manitoba's second most valuable crop after wheat. Canola was the most valuable crop in the province from 1997 to 1999.

Manitoba's **sunflower** area peaked at 153 800 hectares in 1979. Since then, problems due to weather, disease and insects have reduced the sunflower area planted. In 2001, about 56 700 hectares were harvested to produce 92 900 tonnes of sunflowerseed, only 45 percent of the record 1979 crop and 8.7 percent below the 2000 crop.

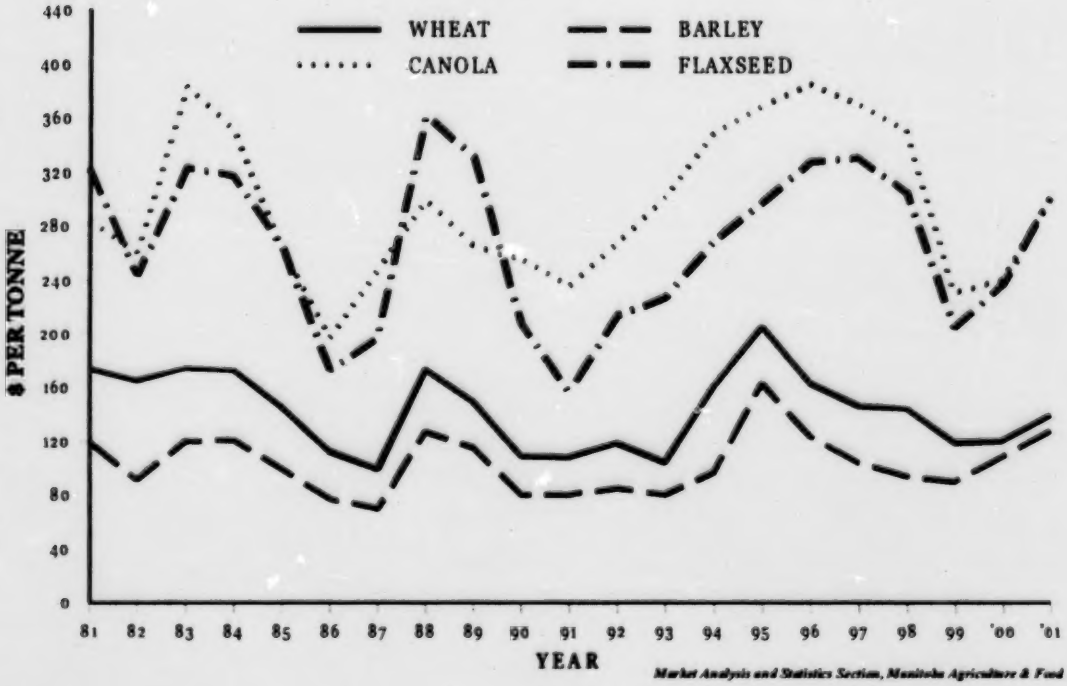
The mix of crops and area seeded each year usually depend on anticipated market prices relative to production costs. The area seeded to wheat in Manitoba in 2002 fell by 14 percent to about 1.38 million hectares, while the barley area declined by six percent to 0.45 million hectares. Plantings of flaxseed decreased to about 174 000 hectares, but the area seeded to canola rose by 16 percent to 890 000 hectares in 2002.

Manitoba is not only an important source of grains and oilseeds, but is also a major area for the production of **specialty crops** in Canada. A total of 223 000 hectares of specialty crops as well as 40 500 hectares of **grain corn** were harvested in Manitoba in 2001. Increased areas of soybeans, dry beans and mustard seed contributed to higher production of these crops. Most specialty crop prices increased from 2000. One of the two major buckwheat-producing provinces, Manitoba supplied 75 percent of the Canadian crop in 2001. Manitoba's dry bean production was more than half of the national crop. Almost seven percent of Canada's dry pea crop, about five percent of the mustard seed and 12 percent of the canary seed crop were produced in Manitoba. In 2002, plantings of both specialty crops and grain corn could be about 41 percent higher than in 2001.

Manitoba's **potato and other vegetable** industries have been expanding over the years. The province has more than 185 commercial potato producers (with over 25 hectares), 25 major commercial vegetable producers and about 235 market gardeners (with over one-half hectare) who employ about 2,000 full-time and seasonal farm workers. The area seeded to potatoes and other vegetables in 2001 was 31 800 hectares and about 2 000 hectares respectively. Production of **potatoes, vegetables, fruit, mushrooms, sod, flowers and nursery products** was valued at $205.4 million in 2001, down by 2.9 percent from $211.5 million in 2000.

SELECTED CROP PRICES

1981 - 2001



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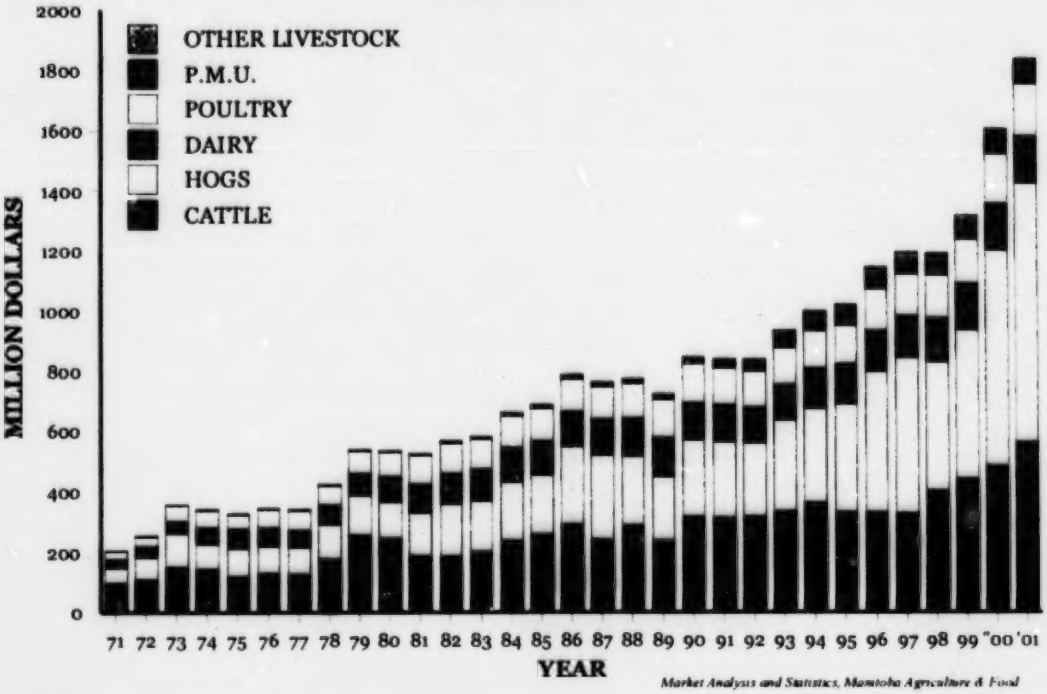
FARM VALUE OF LIVESTOCK PRODUCTION

1971-2001



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Livestock

The Manitoba livestock industry contributed $1.82 billion or 49.3 percent of total farm cash receipts in 2001, a rise of 16.0 percent from 2000 to a new record level.

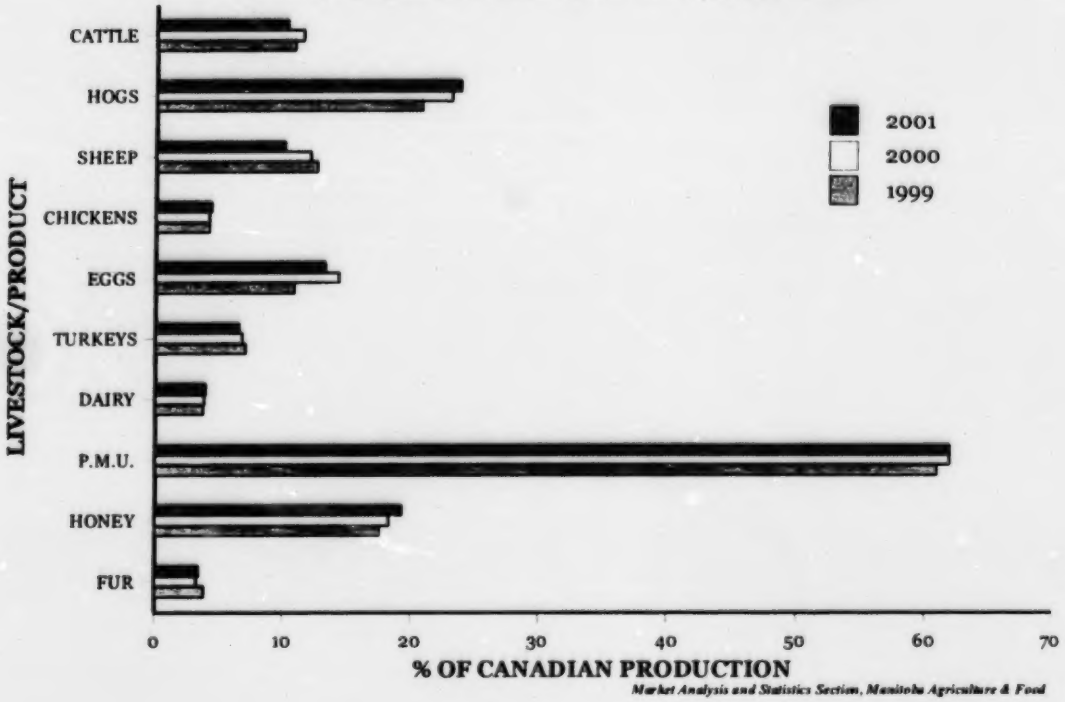
In 2001, the province had 9.2 percent of total beef cattle and calves in Canada, 11.7 percent of the beef cows, 4.0 percent of the dairy cows, 6.7 percent of the sheep and lambs and 13.6 percent of the horses. Manitoba produced almost 24 percent of Canadian hogs, 4.4 percent of the chickens, 7.3 percent of the turkeys, half of the geese, about one percent of the ducks and 13 percent of Canada's chicken egg production. As less than four percent of the population in Canada lives in Manitoba, the province is a surplus supplier of livestock products.

Marketings of **cattle and calves** amounted to 30 percent of livestock product sales and provided 15 percent of total farm cash receipts in 2001. Beef cattle followed hogs as the second most valuable farm commodity in 2001. Prices for Manitoba's cattle and hogs depend on prices in the United States and, to a lesser extent, in Alberta and Ontario. Thus, local prices tend to be variable, depending on the supply and demand for red meats particularly in the major markets of the U.S., Ontario and Quebec. The situation makes management decisions difficult for producers affected by price and income instability.

Over the years, the size of Manitoba's cattle herd has been influenced by factors such as North American beef supply and demand and the variable profitability from cattle production. In response to higher calf prices, Manitoba's beef cow herd steadily increased by an average annual rate of about two percent from 1987 until 1991 and then by a rate of almost six percent to reach 566,000 head in 1997. The beef cow herd, the third largest in Canada, fell to 554,000 head in 1999 and 2000, but rose again to 566,000 head in 2001. Higher prices increased the value of cattle and calf production to $566 million in 2001. The total number of cattle slaughtered in Manitoba packing plants peaked at 581,000 head in 1976. The closing of five cattle slaughter facilities since 1979 reduced local slaughter capacity to 16,000 head in 2001. Sales of cattle and calves to the United States and Alberta have risen over time.

As one of Canada's most cost-effective areas for **pig** production, the swine industry in Manitoba grew significantly in the 1990s. Swine became Manitoba's most valuable agricultural commodity in 2001 with production that year exceeding 6.35 million head, valued at a record $860 million. Over the past thirty years, Manitoba's share of the Canadian hog market declined from 13 percent in 1971 to less than nine percent in 1982 as hog production shifted to the central Canadian provinces, particularly Quebec. By

LIVESTOCK PRODUCTION AS A PERCENTAGE OF CANADIAN PRODUCTION 1999 - 2001



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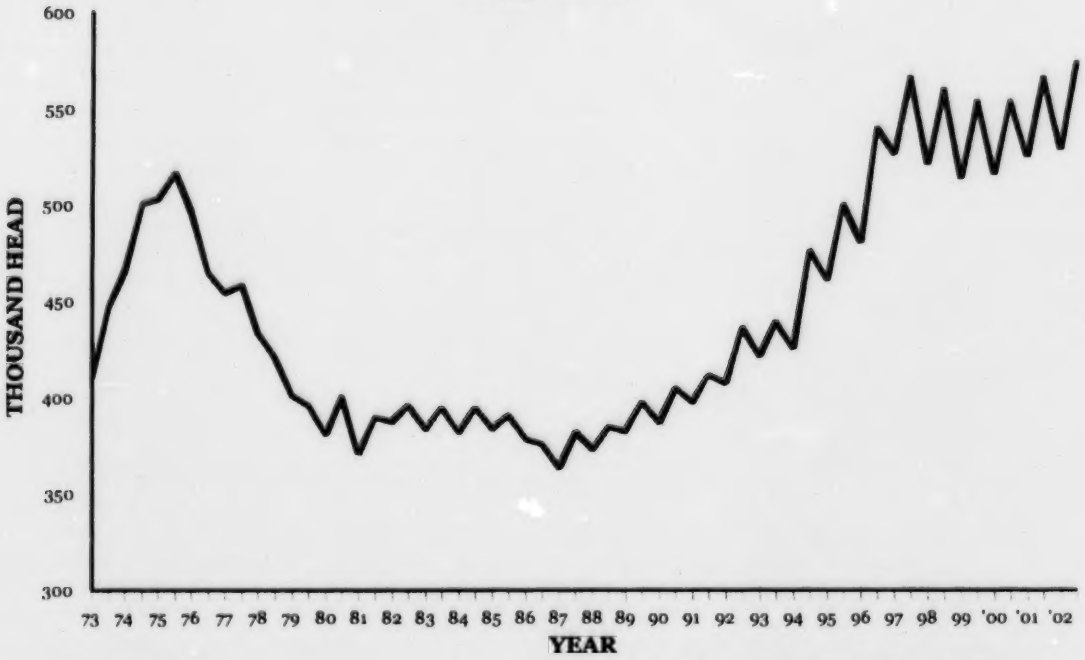
BEEF COWS ON FARMS 1973-2002



Data source: Statistics Canada

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2000 and 2001, Manitoba's share of national hog production had risen to 23.2 and 23.9 percent respectively.

The **sheep** industry is much smaller than that of cattle and hogs. The number of sheep on Manitoba farms was 81,300 head in 1961, but had declined to 22,000 head by 1988. Higher prices in the 1990s increased interest in lamb production and feeding, raising the provincial sheep and lamb inventory to 85,000 head in mid-2001. About 4.0 percent of the lambs produced in Manitoba in 2001 were processed in provincially-inspected packing plants. A number of producers sell their sheep or lambs privately to the consumer or through brokers mainly to Ontario and the United States. Wool sales fell by 60 percent to $34,000.

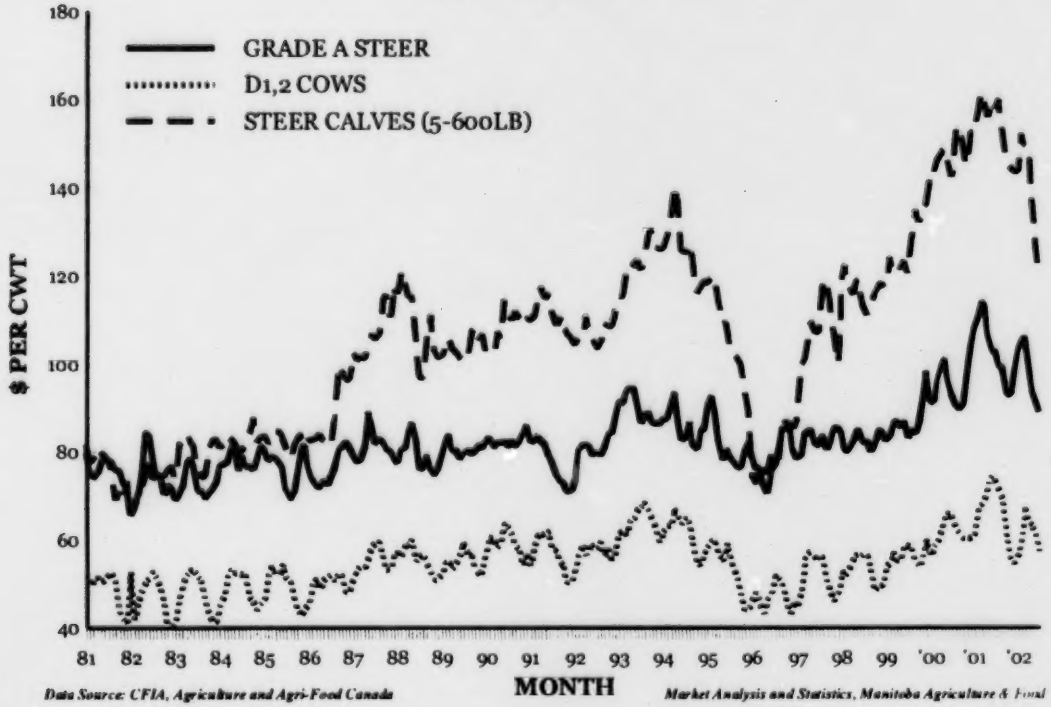
In 2001, about 34,500 Manitoba **dairy** cows within the supply management (quota) system produced 289.5 million litres of milk/cream valued at $159.3 million (including supplementary payments). This was a 2.0 percent increase from the value in 2000. Milk and cream sales were 4.3 percent of total farm cash receipts for the province.

The value of Manitoba **turkeys, chickens** and **eggs** (for consumption) sold in 2001 amounted to $17 million, $64.million and $73 million respectively, down by six percent and up by 14 percent and one percent from the previous year. Manitoba's goose industry, one of the largest in Canada, increased in 2001. Sales of **geese and ducks** were valued at over $0.6 million in 2001. Most expansion in the poultry sector has occurred primarily to supply new markets for processed products.

Manitoba farmers also produce such diverse commodities as honey and beeswax ($17.2 million), alfalfa leafcutting bees ($1.5 million), bison ($6 million), elk and deer ($0.9 million), fox and mink ($1.6 million), goats for milk and meat ($1.3 million), pregnant mare's urine and horse sales ($65.2 million), llamas and alpacas ($0.7 million), ratites - ostriches, emus and rheas - ($0.7 million), pheasants ($0.3 million), rabbits ($0.4 million) and wild boars ($1.2 million). The total value of production of these animals, birds or their products in 2001 was over $97 million, slightly above the 2000 level.

CATTLE PRICES BY MONTH

1981 - 2002



Data Source: CFIA, Agriculture and Agri-Food Canada

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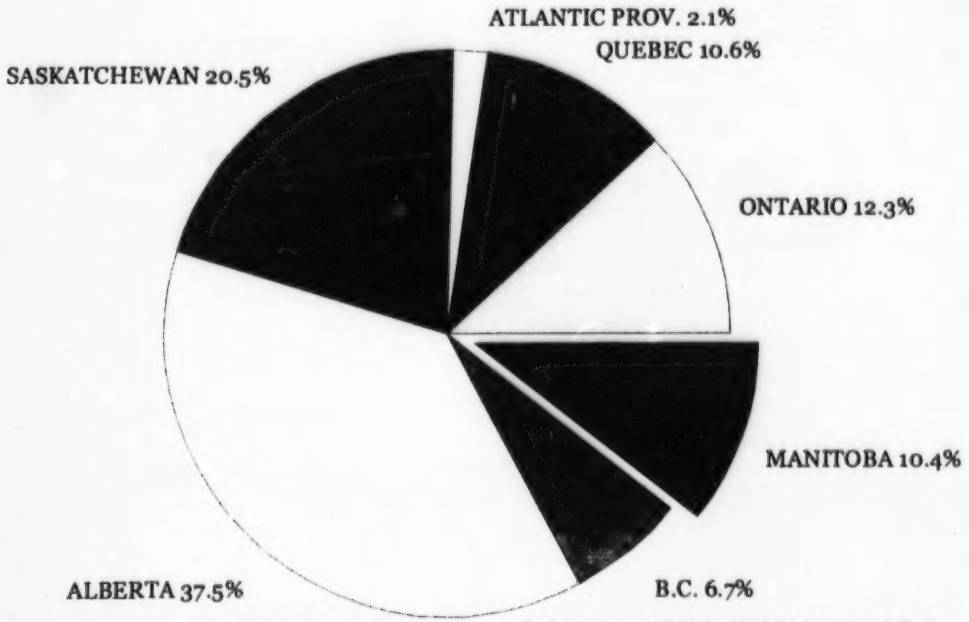
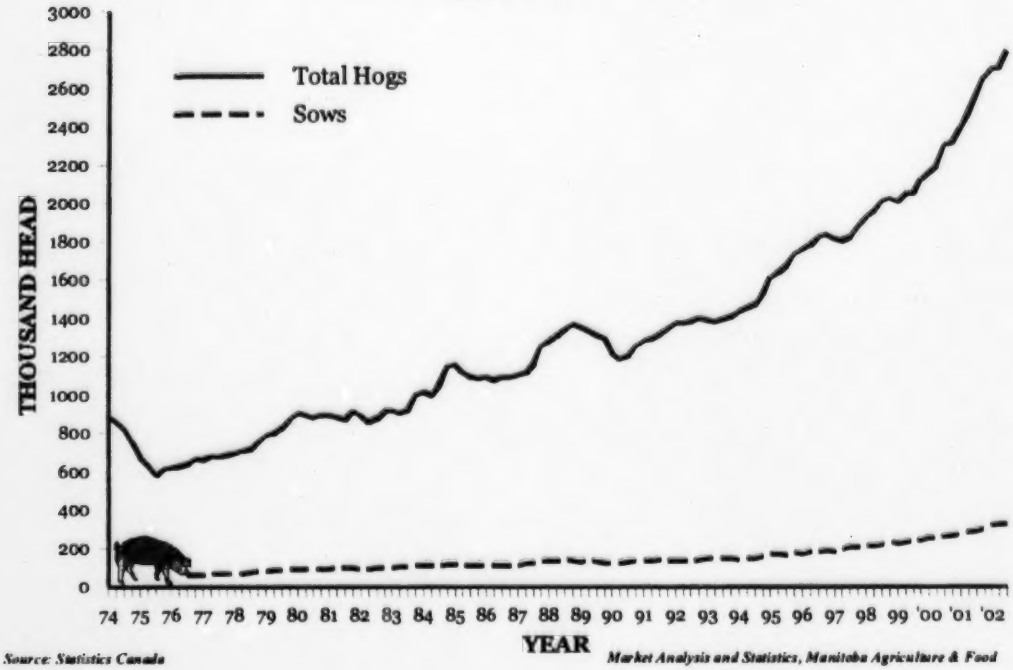
CATTLE/CALF SALES BY PROVINCE OF ORIGIN
2001



Data Source: Agriculture and Agri-Food Canada, Statistics Canada

Market Analysis and Statistics, Manitoba Agriculture & Food

HOGS ON FARMS BY QUARTER
1974-2002



Source: Statistics Canada

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HOG PRICES BY MONTH

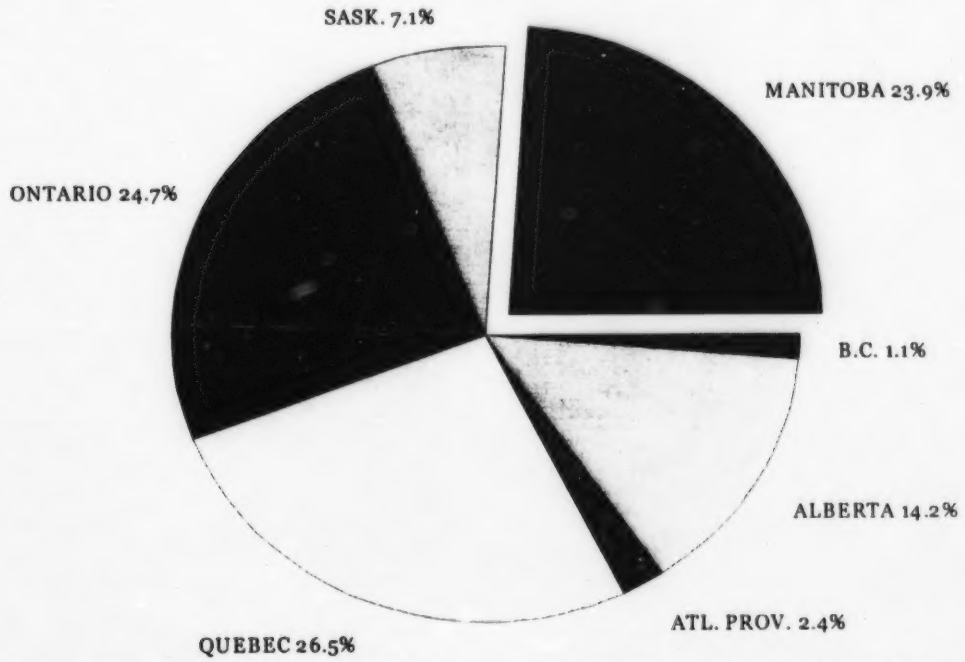
1981 - 2002

Data Source: Manitoba Pork, est. Manitoba Agriculture& Food

Market Analysis and Statistics, Manitoba Agriculture & Food

HOG PRODUCTION BY PROVINCE

2001



Data Source: Statistics Canada, Agriculture and Agri-Food Canada

Market Analysis and Statistics, Manitoba Agriculture & Food

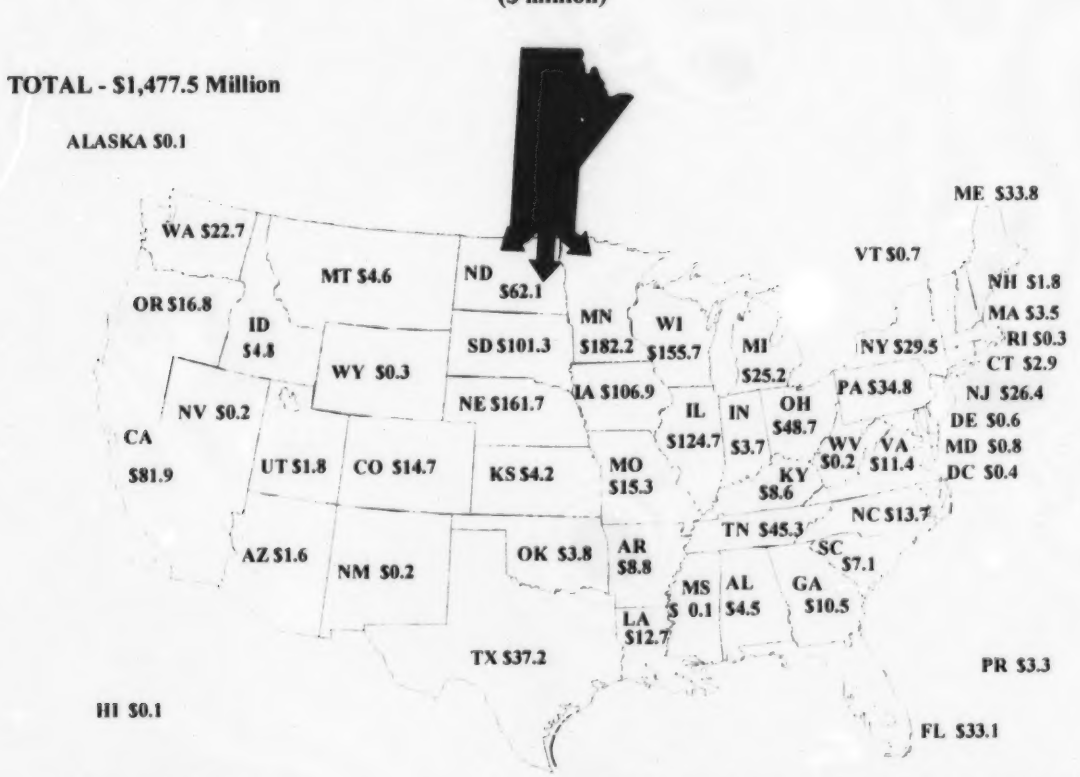
AGRICULTURAL TRADE

Agri-food exports are one of the largest single sources of foreign exchange earnings in Manitoba with shipments to 119 countries as well as the rest of Canada in 2001. The USA is Manitoba's most important trading partner. The value of agri-food exports increased by 14.9 percent to $2,804.0 million in 2001. About $1,102.9 million of Manitoba livestock and livestock products were sent out of the country, while $1,701.1 million of unprocessed and processed grains, oilseeds and other crops were exported.

Manitoba uses about 15-18 percent of the wheat, more than half of the barley and less than 40 percent of the oats produced in the province, the remainder being sold in various forms to other Canadian provinces or other countries. Most of the canola seed, oil and meal Manitoba produces are exported. About 96 percent of Manitoba cattle and calves marketed and approximately 92 percent of the pigs sold in 2001 were sent out of the province, either live or as meat or meat products. Almost all of the turkeys, chickens and eggs produced in Manitoba in 2001 were consumed or processed locally. Hatching eggs and increasing amounts of processed egg products, including albumin and enzymes, were exported to the United States and Japan with small amounts sold to other countries.

Manitoba imported $37.0 million of poultry and dairy products, $55.4 million of meat and meat products and $112.0 million of processed animal feeds in 2001. The province also imported $62.4 million of fresh and processed vegetables and dry legumes, $105.1 million of unprocessed grains and oilseeds and $97.9 million of oilseed, cereal and bakery products. Much of these imports could have been produced in Manitoba. However, given the lower labour costs and better weather in exporting countries, it may not be economically feasible to reduce imports of some foods, such as fresh vegetables in winter.

EXPORTS OF MANITOBA AGRICULTURAL PRODUCTS AND FOOD TO USA, 2001



Source: USDA, Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

EXPORTS OF AGRICULTURAL PRODUCTS AND FOOD, 2001

($ million)

USA $1,477.5

Western Europe $164.7

Eastern Europe $10.5

Middle East $86.7

Japan $410.7

China/Hong Kong $125.0

Mexico $158.2

Caribbean $19.9

Africa $80.1

Other Asia $110.6

Central America $13.9

India $32.6

South America $90.9

Oceania $22.7

Total = $2,804.0 Million

Source: Statistics Canada

Market Analysis and Statistics Section, Manitoba Agriculture & Food

IMPACT OF AGRICULTURE ON THE PROVINCIAL ECONOMY

The relative importance of primary agriculture in the provincial economy has varied considerably from year to year, but overall the total economic impact of the agri-food industry, particularly in rural Manitoba, is significant.

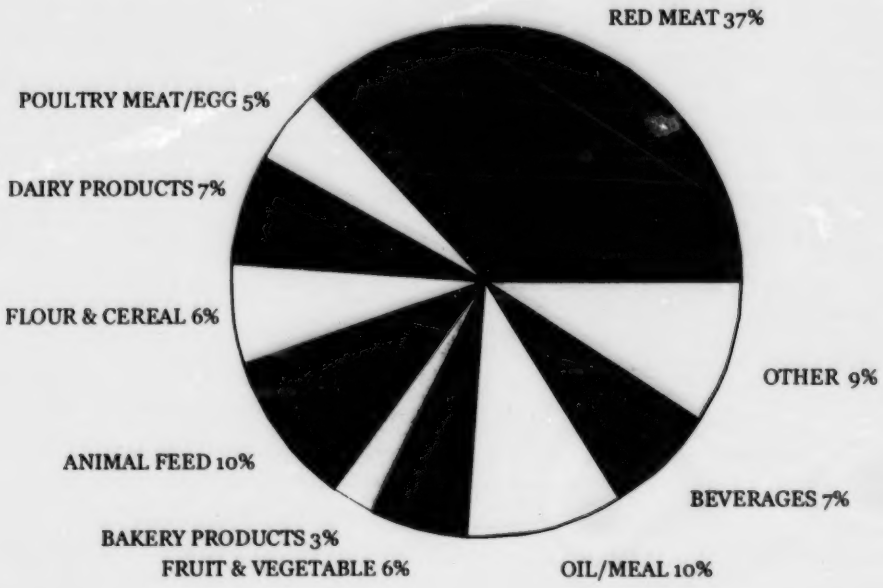
CONTRIBUTION OF FOOD PROCESSING

Manitoba's food and beverage processing industry includes the slaughtering and/or processing of red meat and poultry, fruit and vegetables, cereal products, seed, dairy products, vegetable oils, feed and beverages. It is one of the most important manufacturing industries in the province, producing over $2.6 billion of goods and services in 1999 and an estimated $3.0 billion in 2001, or about 24 percent of the total manufacturing output in the province. About $1.9 billion worth of inputs went into the industry in 1999 and generated an added value of $0.7 billion. The food processing industry employed over 7,760 administrative, production and related workers in 1999 with wages of $222 million, an increase of 810 employees and $12.5 million in wages from the 1998 level. In 2001, the estimated number of workers increased to 8,000.

Meat and poultry slaughtering and processing, the largest sector, produced $741.9 million of meat and meat products in 1999 and about $1,300 million in 2001. The sector employed 3,160 people with wages totalling $76.5 million in 1999, but the numbers rose in 2000 and 2001. Raw inputs, cattle, hogs and poultry, accounted for about 80 percent of the meat processing industry's total cost of materials and supplies of $555.9 million in 1999. About 81 percent of the hogs and almost all of the cattle and poultry slaughtered in the province in 2001 originated in Manitoba. A large portion of the sector's output consisted of pork, most of which was sold to other provinces, U.S.A., Japan, Mexico and 33 other countries. Record pork exports of 167 million kg were valued at $518.8 million in 2001, while beef exports were valued at only $5.3 million.

Technological changes in animal slaughter and meat production have contributed to the rationalisation of the meat packing industry over the years. A hog slaughter plant, Springhill Farms, Ltd., was built in Neepawa in 1986. Canada Packers closed its Winnipeg slaughter plant in early 1987, which reduced Manitoba's cattle slaughter capacity by about 40 percent. Further reduction in cattle and hog slaughter capacity occurred in March 1990 when East West

FOOD AND BEVERAGE PROCESSING INDUSTRY
2001 (est.)



Packers was forced to close. Burns Meats (purchased by Maple Leaf Meats) closed its Brandon cattle slaughter plant in November 1990 and shut down its Winnipeg cattle kill line in late 1997. Maple Leaf Pork and J.M. Schneider Inc. significantly increased their hog slaughter and processing capacity in 1998 and 1999. Maple Leaf Pork purchased Schneider's plants in March 2001. Despite the closure of a poultry slaughter facility in late 1995, one in 1997 and a secondary processing facility in 1998, the amount of poultry meat processed in the province continued to expand.

Egg processing in Manitoba, mainly by Canada's largest processor, Canadian Inovatech Inc. and the other major processor, Burnbrae Farms Ltd., has been increasing.

Other important food processing sectors include dairy, oilseed crushing, bakery, animal feed, beverage and potato processing. The province's **feed industry** employed 735 production and administrative staff with sales of $313 million in 1999. Principal inputs for the industry are barley, feed wheat and canola meal. Smaller amounts of dry peas and corn are also used. Much of the corn and canola meal produced in Manitoba is used locally by the feed industry. Grain used to produce ethanol at a plant in Minnedosa provides mash for feed as by-product. Increasing amounts of corn and soybean meal are imported from the United States to supplement local feed supplies, mainly for pigs.

About 86 percent of Manitoba's potato crop is used for processed foods, such as frozen french fries and hash browns, instant mashed potatoes and potato chips. Sales by the three major and two smaller **potato and other vegetable processing plants**, which employed about 1,300 people, were estimated at about $200 million in 2001.

Three **fluid milk** and thirteen **industrial milk and cheese plants** employed about 470 workers to produce fluid milk estimated at $180 million in 2001 and cream, cheese, butter, ice-cream and other dairy products valued at about $250 million. Estimated cost of inputs was $340 million.

Manitoba has three **oilseed crushing plants**. One is located at Altona and another at Harrowby on the Saskatchewan border. An oilseed crushing plant was built in Ste. Agathe in 1998, but is not in production. In past years, most of the sunflowerseed and canola crushed at Altona came from Manitoba, but the smaller canola crops in recent years led to increased imports of seed. Output from the plants includes bulk crude and refined oil, bulk vegetable oil, retail pack refined oil, hulls and screenings.

Although most of Manitoba's food-quality wheat and other grains are exported, some are processed locally. The province's four **flourmills** and 49 **bakeries** employed about 1,200 people to produce an estimated $60 million worth of flour and cereals and $80 million of bread and other bakery products in 2001. A flour mill was constructed at Elie for Prairie Flour Mills in 1997, the first new mill in the province for many years. There are two oat processing facilities, one at Portage la Prairie and one at Emerson.

The straw particle-board plant built at Elie has the potential to utilise about 185 000 tonnes of straw per year from the surrounding area. The plant employed about 100 people when it became fully operational in 1998.

The province's **beverage industry** employed approximately 600 people and produced beer, wine, soft drinks and spirits valued at about $200 million in 2001. The distillery at Gimli uses about 40 000-50 000 tonnes (1.8-2.0 million bushels) of grain corn annually. Establishment of the plant at Gimli was based on the availability of high quality and abundant supplies of water and the use of top quality grain corn, most of which is supplied by Manitoba farmers.

In Manitoba, the manufacture of pharmaceutical and medicinal products, valued at about $200 million in 2001, often involves the use of agricultural products, such as pregnant mares' urine, eggs, horseradish and other crops.

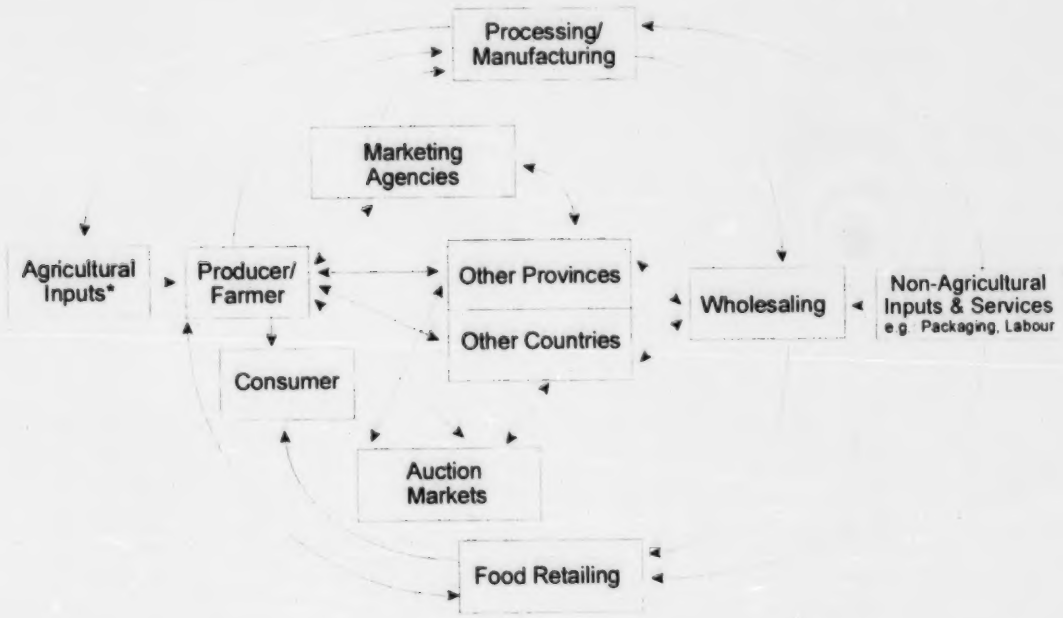
CONTRIBUTION OF AGRICULTURAL INDUSTRIES

About 30 Manitoba **implement manufacturing companies** are directly associated with agriculture. The companies employ about 2,150 workers and produce close to $0.6 billion worth of equipment. For the manufacture of implements, the companies in turn purchase $380 million in inputs and contributed $220 million in value added to the final product. The total value of this contribution to the provincial economy is not solely attributable to Manitoba agriculture. However, it indicates the significance of this sub-unit to the agricultural sector of Manitoba's economy.

In addition to the 30 companies directly linked to agricultural equipment manufacturing, numerous firms are more indirectly associated with the agriculture equipment industry. These firms produce inputs for agriculture as a secondary output of their operation or as input into a larger agricultural manufacturing operation. The total value of this contribution to the agriculture sector is estimated at over $100 million. The associated labour force is estimated at about 1,000.

There were 152 **licensed dealer establishments** selling farm machinery and associated equipment and providing service facilities in March 2002. In addition, 93 **licensed vendors** supplied farm machinery and equipment repair parts to licensed dealers in the province, ten fewer than a year earlier. A number of unlicensed facilities provide repair services for farm equipment. The total value of repair and servicing of farm machinery contributed an estimated $218 million to the provincial economy in 2001, up from $211 million a year earlier.

MANITOBA AGRI-FOOD SYSTEM



CONTRIBUTION OF SERVICE SECTOR

Manitoba agriculture depends on various service industries. These industries include transportation, finance, insurance, construction and real estate. In addition, federal and provincial governments provide farmers with services such as extension, regulatory, research and development, financial and infrastructure. An estimated 1.5 percent of total provincial **transportation** expenditures involves the movement of agricultural products, raw or processed. Farm expenditures on **financial, insurance** and **real estate services** amount to approximately nine percent of total expenditures for these services. About eight percent of Manitoba's **construction** takes place on farms or is for agriculture-related industries. Manitoba farms and agri-food industry use ten percent of the total **electric power,** about 43 percent of the **chemicals** and almost 22 percent of total **gasoline and fuel oil** consumed in the province.

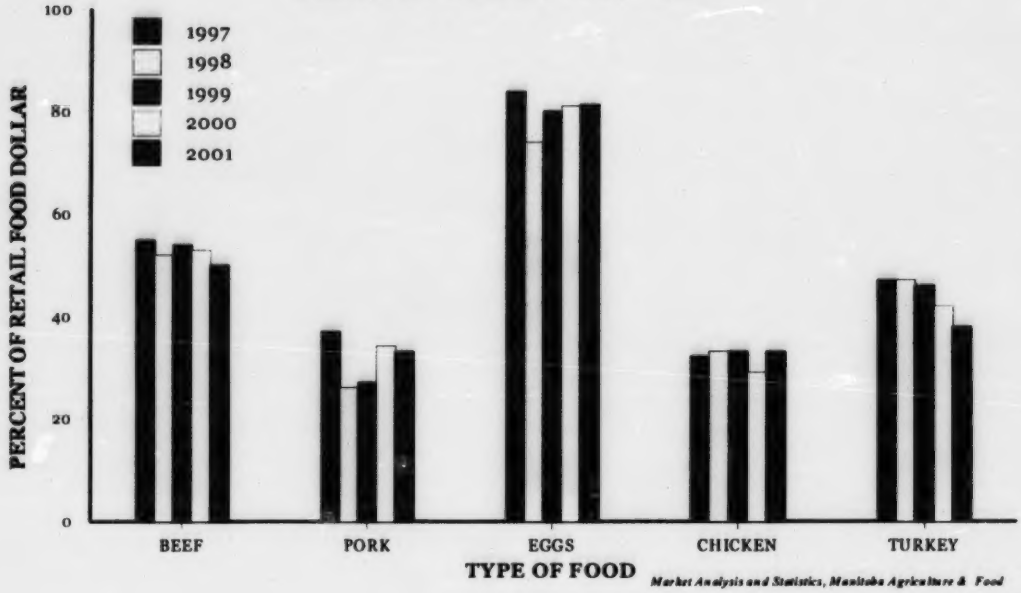
Although a portion of the food consumed by Manitobans is imported from other provinces or countries, about half of the food sold by Manitoba's **grocery** and other **food** stores is derived from products grown and processed in Manitoba. Thus, a portion of the retail margins from these stores can be included with agriculture's contribution to the provincial economy. In 2001, Manitoba's close to 1,300 grocery and other food stores had $2.34 billion in total sales volume, an increase of 4.8 percent from the previous year. Gross margins and net profits amounted to about 20 percent ($468 million) and one percent ($23 million) respectively. It is estimated that 50 percent ($234 million) of value added to foods purchased by retailers is an indirect contribution of agriculture to the economy. Food wholesaling activities also contribute to the economy.

For livestock products such as beef, pork, chicken, turkey and eggs, about 33 to 81 percent of the **consumers' food dollar** goes to the livestock producer, depending on the extent of processing and merchandising required for each commodity. In 2001, an egg producer received more than 81 percent of the retail price of eggs, while a broiler chicken producer received about 33 percent of the amount a consumer paid for chicken. Processing and merchandising costs and wastage are greater for chickens than for eggs.

TOTAL IMPACT OF AGRICULTURE

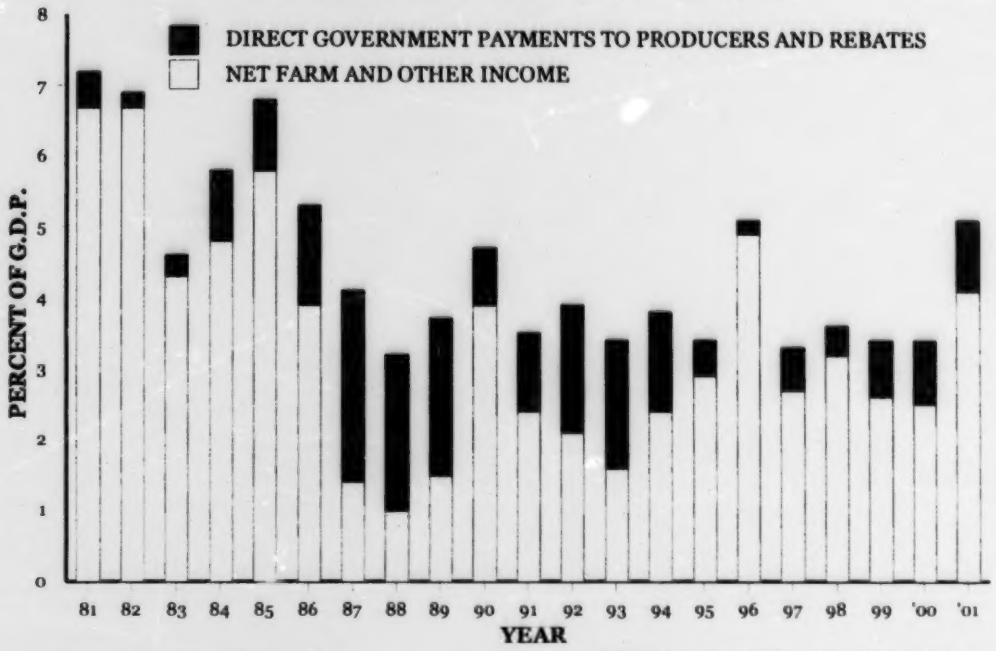
One measure of provincial output is the Gross Domestic Product (GDP), which is an aggregate of net profits and incomes, including wages, depreciation and investment income. Agriculture's **direct contribution to the GDP** was 5.1 in 2001, up from 3.4 percent in both 1999 and 2000 due to an increase in government assistance and higher livestock prices. During the past two decades, the

MANITOBA FARMERS' SHARE OF RETAIL PRICE OF FOOD, 1997 - 2001



Market Analysis and Statistics, Manitoba Agriculture & Food

CONTRIBUTION OF PRIMARY AGRICULTURE TO MANITOBA G.D.P., 1981 - 2001



Source: Statistics Canada, Manitoba Bureau of Statistics *Market Analysis and Statistics Section, Manitoba Agriculture & Food*

contribution to the GDP fell from 7.2 and 6.9 in 1981 and 1982 to 4.6 percent in 1983. Net farm income increased so that agriculture's contribution to the GDP rose to 5.8 and 6.8 percent in 1984 and 1985, but declined to 5.3 percent in 1986. Despite increased government assistance, particularly to grain producers, the contribution to the GDP further declined to between 3.2 and 4.7 percent during the period 1987 to 1995. With improved net farm income in 1996 the contribution rose to 5.1 percent, but declined at the end of the decade when net farm incomes fell. *Without government assistance*, agriculture's contribution to the GDP ranged between 1.0 and 3.8 percent during the years 1987 to 1995, but rose to 4.9 percent in 1996 as government payments to producers fell when returns from the marketplace increased. Lower crop sales and prices resulted in primary agriculture's share of the GDP falling to 2.6 and 2.5 percent in 1999 and 2000. Once again returns from the market place improved, particularly for livestock producers, raising the share of GDP without government assistance to 4.1 percent in 2001.

Agriculture also makes an indirect contribution to the provincial economy through income derived from agriculture-connected industries. These include the food and beverage processing industry, industries which supply inputs to agriculture, as well as wholesale, retail and other service sector components which supply services to farmers and other agriculture-related workers. When agriculture's **indirect contribution to the GDP** was added to its direct contribution, an estimated 12 percent of Manitoba's GDP was attributed to agriculture in 2001 compared to about 10 percent in 2000, 9.8 percent in 1999 and a fifteen-year high of 13.8 percent in 1996.

Agriculture, directly or indirectly, accounted for more than one dollar in eight of production in Manitoba's economy in 2001.

For every dollar of net income produced by primary agriculture in Manitoba, about $1.90 is generated in the overall Manitoba economy.

In 2001, about 30,000 people were directly employed in Manitoba's agricultural industry. In addition, it is estimated that 19,000 persons were employed in other areas of the provincial economy as a direct result of the agricultural industry, bringing **total employment generated by agriculture** to 8.8 percent of Manitoba's employed labour force in 2001. This means that about one job in eleven was the result of agricultural production. For every three jobs created on farms in 2001, almost two jobs were created in other areas of the Manitoba economy. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada.